11Mbps Wireless LAN PC Card

User’ s Manual

Information in this document is subject to change without notice. No part of this document may be reproduced or transmitted in any form or by any means, electronic or mechanical, for any purpose, without the express written permission of the seller.
The seller provides this documentation without warranty, term, or condition of any kind. The seller may make improvements or changes in the product(s) and/or the program(s) described in this documentation at any time.

Other product and company names herein may be trademarks of their respective owners.

@2001 All rights reserved.

Contents

Chapter 1 Introduction 1

Local Area Network (LAN) 1
Ad Hoc Network 2
Infrastructure Network 2

Chapter 2 Installing the Wireless LAN Card 3

System Requirements 3
Installing the Hardware 3
Wireless LAN Card Status LEDs 4
Installing the Device Driver 5
Installing the Wireless LAN Card Software 21

Chapter 3 Configuring the Wireless LAN Card 25

Connecting to Other Computers with WLAN (Ad Hoc) 26
Quick connecting to Other Computers with WLAN (Ad Hoc) 27
Connecting to Access Points (Infrastructure) 28
Quick Connecting to any unknown Access Points (Infrastructure) 29
Quick Connecting to a known Access Points (Infrastructure) 34
Setting Security 36

Setting Power Save Mode 38
Checking Link Quality (Infrastructure Mode Only) 40

Chapter 4 Uninstalling the Wireless LAN Card..... 41

Removing the Wireless LAN Card..... 42

Chapter 5 Updating the Device Driver..... 43

Chapter 6 Troubleshooting 46

Radio Interference..... 46
Card Not Detected..... 47
Cannot Connect to Another Wireless LAN Card..... 47
Poor Link Quality..... 48
Cannot Connect to Access Point 48

Appendix A Limited Warranty 49

Wireless LAN Hardware 49
Wireless LAN Software..... 50

Appendix B Regulatory Compliance 51

FCC Part 15 Declaration of Conformity (DoC)..... 51
FCC Rules and Regulations - Part 15 52
FCC Radiation Exposure Statement 52

Appendix C Setting Up TCP/IP..... 53

Glossary 54

Index 58

Chapter 1
Introduction

This User's Manual contains information on how to install and configure your Wireless LAN Card. Your Wireless LAN Card will allow you to connect your computer to other Wireless LAN Card equipped computers.

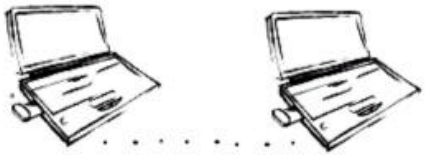
Local Area Network (LAN)

Simply put, a LAN is a network that exists in a relatively limited area. A network is two or more computers connected together sharing files and peripheral devices such as printers.

The Wireless LAN Card allows you to interact with other computers without having to run cables normally associated with networks. This lets you move your computer around while staying connected to your network.

There are two ways to use the Wireless LAN Card. One way is to connect directly to one or more Wireless LAN Card equipped computers, forming an Ad Hoc wireless network. The second way is to connect to an Access Point that gives you access to an existing wired LAN, forming an Infrastructure wireless network.

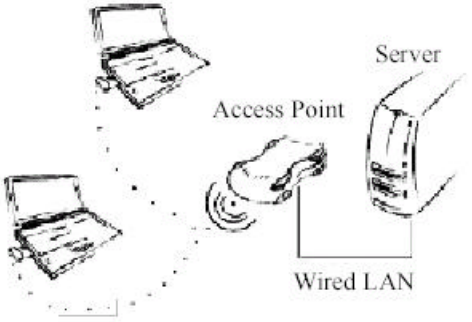
Ad Hoc Network



The Ad Hoc network offers peer to peer connections between workstations, allowing communication between computers within range that have an 802.11 DSSS compatible PC card installed. A wireless Ad Hoc network can also access a wired LAN's TCP/IP service (such as e-mail and the Internet) by using a TCP/IP software router on an Ethernet equipped PowerBook or notebook.

Infrastructure Network

The infrastructure network uses an access point (or several access points) as a gateway, linking the wireless network to a wired LAN. As a result, portable workstations on your wireless network have access to all of the features of your wired LAN including e-mail, Internet access, network printers and files server.



Chapter 2

Installing the Wireless LAN Card

System Requirements

To use the Wireless LAN Card, your computer must meet the following minimum requirements:

. Windows 98(SE)/Me /2000/XP
. 16 MB of RAM, additional memory recommended
. Available (Type II) PC card slot

Installing the Hardware

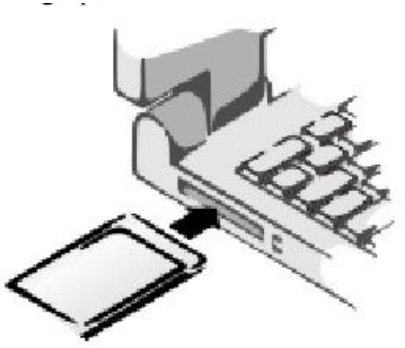
The Wireless LAN Card can be inserted into your computer's PCMCIA slot when the computer power is either turned on or off.

After installing the hardware, install the device driver and then install the Wireless LAN Card software.

Caution: Do not force the Wireless LAN Card into the slot or severe damage to the computer may occur.

The red LED on the Wireless LAN Card will light when the Wireless LAN Card is inserted into the PCMCIA slot and the computer is turned on.

Insert the end of the Wire Insert the end of the Wireless LAN Card into the PCMCIA slot of our computer with the printed label facing up, and slide it in until it is firmly seated.



Wireless LAN Card Status LEDs

The two LEDs on the Wireless LAN Card indicate connection status and data transfer operation status, as described below:

LED	Color	State	Description
Power	Red	On	Connected to an Ad Hoc or Infrastructure network.
		Blinking	Searching for an Access Point or another wireless LAN computer.
Activity	Green	Blinking	Transmission mode. The faster the LED blinks. The higher the data exchange rate.

Installing the Device Driver

Windows will automatically start the device driver installation when the Wireless LAN Card is installed or when Windows starts.

For Windows 98(SE)

1. When the wizard appears, click **Next**.

Add New Hardware Wizard
This wizard searches for new drivers for:
NTT-ME-11Mbps Wireless LAN PC Card
A device driver is a software program that makes a hardware device work.
< Back
Next >
Cancel

Have your Windows 98(SE) /Me installation CD-ROM or disks available; Windows may prompt you for them.

Then select **Search for the best driver.** And click **Next**.

Add New Hardware Wizard
What do you want Windows to do?
Search for the best driver for your device. (Recommended).
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

If you need to set up the TCP/IP address or the Subnet Mask, refer to .Appendix C - Setting Up TCP/IP. on page 53.

2. Insert the Installation CD into your CD-ROM drive.
   Check **Specify a location** and click **Browse** to specify the path to **D:\Driver\Win9x** where D is the CD-ROM drive letter and click **Next**.

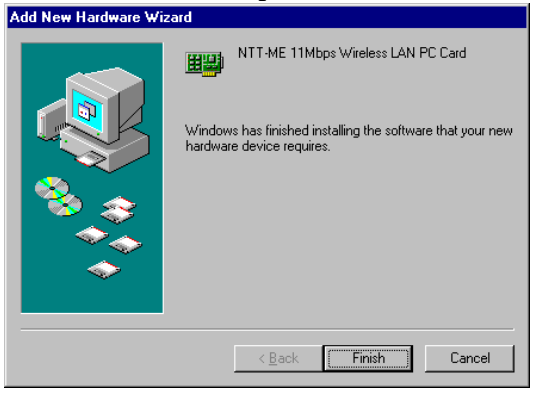
Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.
Floppy disk drives
CD-ROM drive
Microsoft Windows Update
Specify a location:
F:\Driver\Win9x
Browse...
< Back
Next >
Cancel

3. When the driver is found, click **Next** to continue.

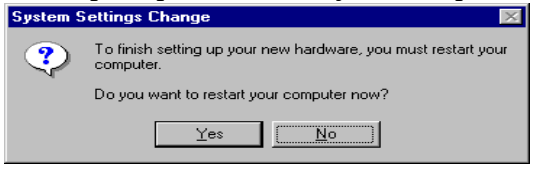
Add New Hardware Wizard
Windows driver file search for the device:
NTT-ME 11Mbps Wireless LAN PC Card
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
F:\DRIVER\WIN9X\NETCW10.INF
< Back
Next >
Cancel

NOTE: If prompted, insert your Windows 98(SE) installation CD and then click **OK**.

4. Click **Finish** to complete the driver installation.


Add New Hardware Wizard
NTT-ME 11Mbps Wireless LAN PC Card
Windows has finished installing the software that your new hardware device requires.
< Back
Finish
Cancel

5. When prompted to restart your computer, click **No** and continue to the next task.


System Settings Change
To finish setting up your new hardware, you must restart your computer.
Do you want to restart your computer now?
Yes
No

For Windows Me

1. When the wizard appears, select **Specify the location .** and click **Next**.

Add New Hardware Wizard
Windows has found the following new hardware:
NTT-ME-11Mbps Wireless LAN PC Card
Windows can automatically search for and install software that supports your hardware. If your hardware came with installation media, insert it now and click Next.
What would you like to do?
Automatic search for a better driver (Recommended)
Specify the location of the driver (Advanced)
< Back
Next >
Cancel

Have your Windows 98(SE) /Me installation CD-ROM or disks available; Windows may prompt you for them.

If you need to set up the TCP/IP address or the Subnet Mask, refer to .Appendix C - Setting Up TCP/IP. on page 53.

2. Insert the Installation CD into your CD-ROM drive. Select the check boxes for both **Search for the best driver .** and **Specify a locatio**n. Click **Browse** to specify the path to **D:\Driver\WinME** where D is the CD-ROM drive letter and click **Next**.

Add New Hardware Wizard
Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected
Search for the best driver for your device. (Recommended).
Removable Media (Floppy, CD-ROM...)
Specify a location:
F:\Driver\WinME
Browse
Display a list of all the drivers in a specific location, so you can select the driver you want.
< Back
Next >
Cancel

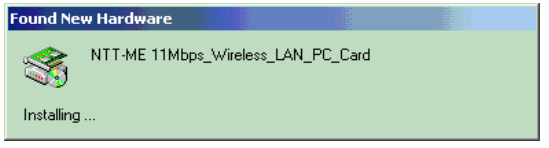
3. When the driver is found, click **Next** to continue.

Add New Hardware Wizard
Windows driver file search for the device:
NTT-ME 11Mbps Wireless LAN PC Card
Windows is now ready to install the best driver for this device. Click Back to select a different driver, or click Next to continue.
Location of driver:
F:\DRIVER\WINME\NETCW10.INF
< Back
Next >
Cancel

4. Click **Finish** to complete the driver installation.

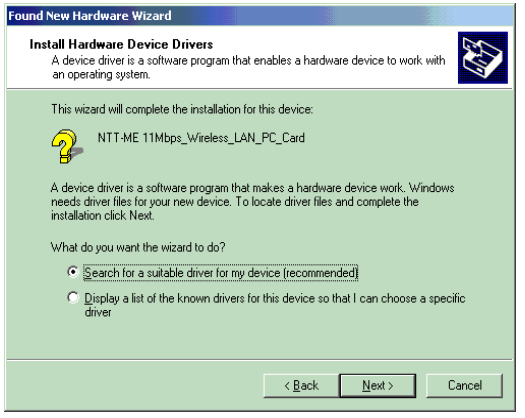
For Windows 2000

1. When the wizard appears, click **Next.**

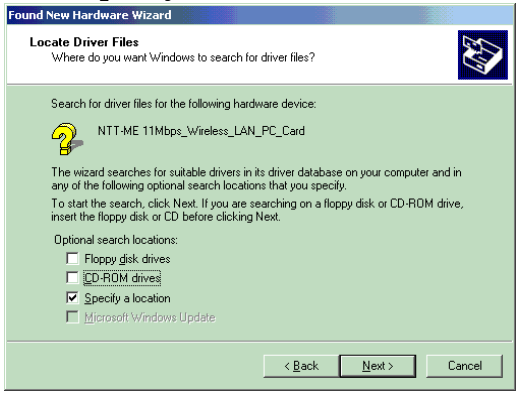


Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install a device driver for a hardware device.
To continue, click Next.
< Back
Next >
Cancel

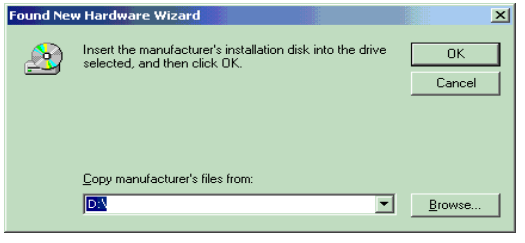
2. Insert the Installation CD into your CD-ROM drive.
   Select **Search for a suitable driver.** and click **Next**.

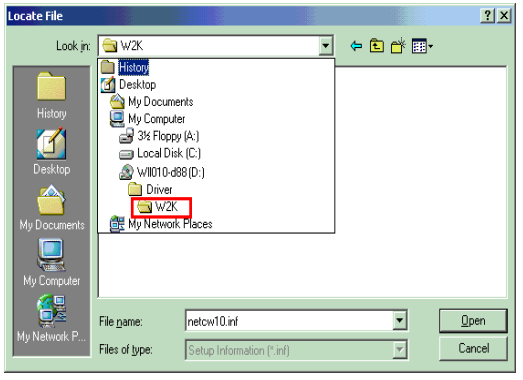

Found New Hardware Wizard
Install Hardware Device Drivers
A device driver is a software program that enables a hardware device to work with an operating system.
This wizard will complete the installation for this device:
NTT-ME 11Mbps_Wireless_LAN_PC_Card
A device driver is a software program that makes a hardware device work. Windows needs driver files for your new device. To locate driver files and complete the installation click Next.
What do you want the wizard to do?
Search for a suitable driver for my device (recommended)
Display a list of the known drivers for this device so that I can choose a specific driver
< Back
Next >
Cancel

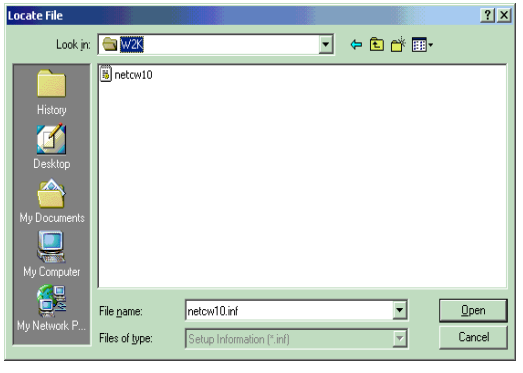
3. Check **Specify a location** and click **Next**.

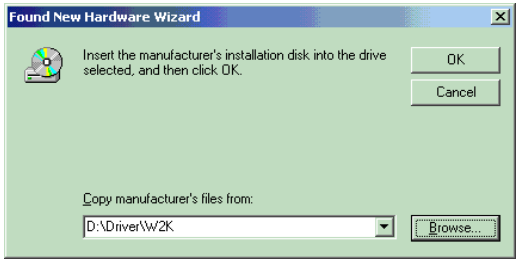

Found New Hardware Wizard
Locate Driver Files
Where do you want Windows to search for driver files?
Search for driver files for the following hardware device:
NTT-ME 11Mbps_Wireless_LAN_PC_Card
The wizard searches for suitable drivers in its driver database on your computer and in any of the following optional search locations that you specify.
To start the search, click Next. If you are searching on a floppy disk or CD-ROM drive, insert the floppy disk or CD before clicking Next.
Optional search locations:
Floppy disk drives
CD-ROM drives
Specify a location
Microsoft Windows Update
< Back
Next >
Cancel

4. Click **Browse** to specify the path to **D:\Driver\W2K**
   where D is the CD-ROM drive letter. and click **OPEN**. and click **OK**.

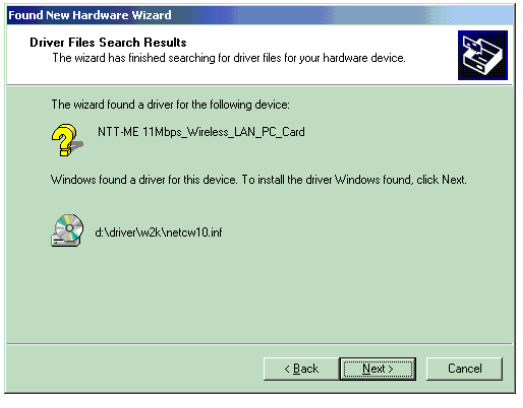



Locate File
Look in:
W2K
History
Desktop
My Documents
My Computer
3½ Floppy (A:)
Local Disk (C:)
Wll010-d88 (D:)
Driver
W2K
My Network Places
File name:
netcw10.inf
Files of type:
Setup Information (*.inf)
Open
Cancel

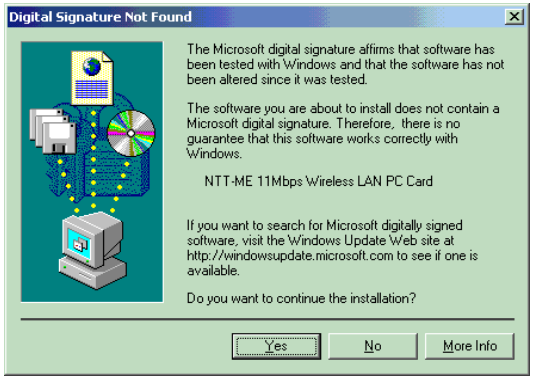

Locate File
Look in:
W2K
netcw10
File name:
netcw10.inf
Files of type:
Setup Information (*.inf)
Open
Cancel



5. When the driver is found, click **Next** to continue.


Found New Hardware Wizard
Driver Files Search Results
The wizard has finished searching for driver files for your hardware device.
The wizard found a driver for the following device:
NTT-ME 11Mbps_Wireless_LAN_PC_Card
Windows found a driver for this device. To install the driver Windows found, click Next.
d:\driver\w2k\netcw10.inf
< Back
Next >
Cancel

6. When the **Digital Signature Not Found** message appears, click **Yes**.

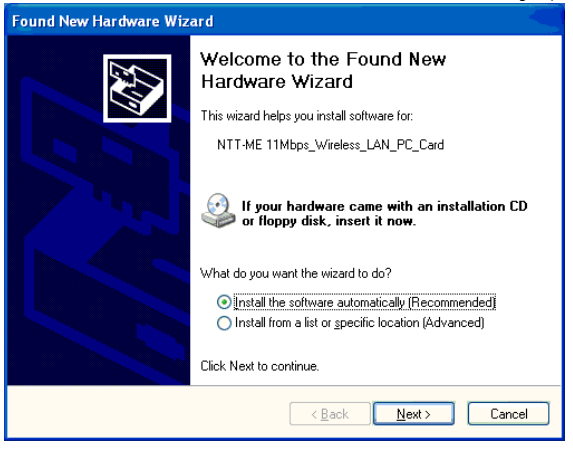

Digital Signature Not Found
The Microsoft digital signature affirms that software has been tested with Windows and that the software has not been altered since it was tested.
The software you are about to install does not contain a Microsoft digital signature. Therefore, there is no guarantee that this software works correctly with Windows.
NTT-ME 11Mbps Wireless LAN PC Card
If you want to search for Microsoft digitally signed software, visit the Windows Update Web site at http://windowsupdate.microsoft.com to see if one is available.
Do you want to continue the installation?
Yes
No
More Info

7. Click **Finish** to complete the driver installation.

Found New Hardware Wizard
Completing the Found New Hardware Wizard
NTT-ME 11Mbps Wireless LAN PC Card
Windows has finished installing the software for this device.
To close this wizard, click Finish.
< Back
Finish
Cancel

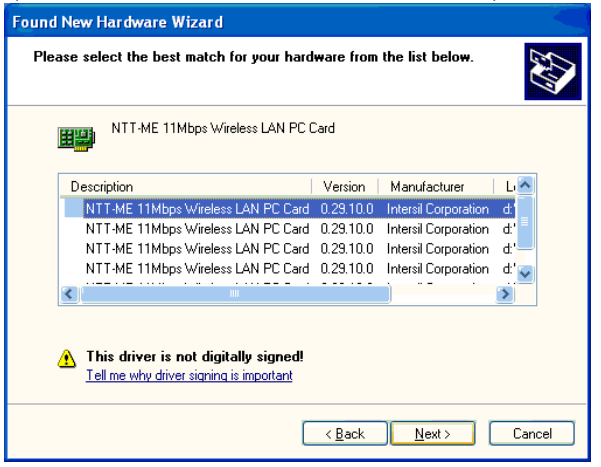
For Windows XP

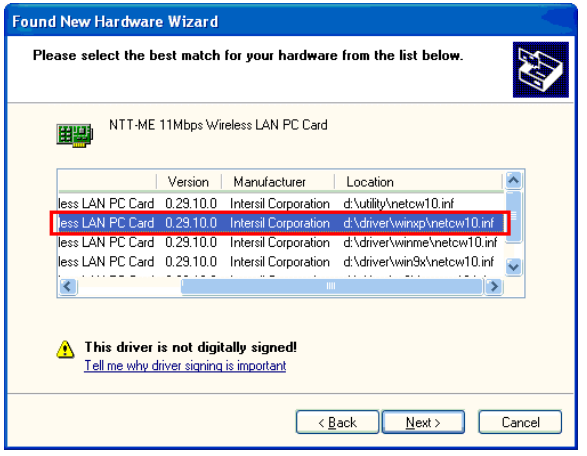
1. When the wizard appears,
   Select **Install the software automatically (Recommended).**


Found New Hardware Wizard
Welcome to the Found New Hardware Wizard
This wizard helps you install software for:
NTT-ME 11Mbps_Wireless_LAN_PC_Card
If your hardware came with an installation CD or floppy disk, insert it now.
What do you want the wizard to do?
Install the software automatically (Recommended)
Install from a list or specific location (Advanced)
Click Next to continue.
< Back
Next >
Cancel

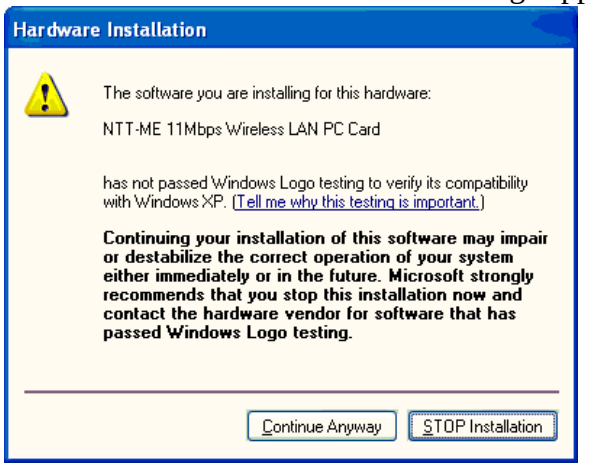
2. Insert the Installation CD into your CD-ROM drive and click **Next**.

3. click the file under **Location** called **d:\driver\winxp\netcw10.inf**. (where D is the CD-ROM drive letter) and click **Next**.

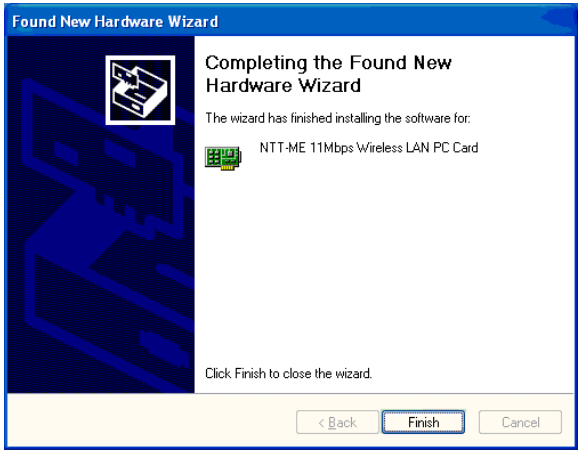

Found New Hardware Wizard
Please select the best match for your hardware from the list below.
NTT-ME 11Mbps Wireless LAN PC Card
Description
Version
Manufacturer
NTT-ME 11Mbps Wireless LAN PC Card 0.29.10.0 Intersil Corporation
NTT-ME 11Mbps Wireless LAN PC Card 0.29.10.0 Intersil Corporation
NTT-ME 11Mbps Wireless LAN PC Card 0.29.10.0 Intersil Corporation
NTT-ME 11Mbps Wireless LAN PC Card 0.29.10.0 Intersil Corporation
This driver is not digitally signed!
Tell me why driver signing is important
< Back
Next >
Cancel


Found New Hardware Wizard
Please select the best match for your hardware from the list below.
NTT-ME 11Mbps Wireless LAN PC Card
Version
Manufacturer
Location
less LAN PC Card 0.29.10.0 Intersil Corporation d:\utility\netcw10.inf
less LAN PC Card 0.29.10.0 Intersil Corporation d:\driver\winxp\netcw10.inf
less LAN PC Card 0.29.10.0 Intersil Corporation d:\driver\winme\netcw10.inf
less LAN PC Card 0.29.10.0 Intersil Corporation d:\driver\win9x\netcw10.inf
This driver is not digitally signed!
Tell me why driver signing is important
< Back
Next >
Cancel

4. When the **Hardware Installation** message appears, click **Continue Anyway.**


Hardware Installation
The software you are installing for this hardware:
NTT-ME 11Mbps Wireless LAN PC Card
has not passed Windows Logo testing to verify its compatibility with Windows XP. (Tell me why this testing is important.)
Continuing your installation of this software may impair or destabilize the correct operation of your system either immediately or in the future. Microsoft strongly recommends that you stop this installation now and contact the hardware vendor for software that has passed Windows Logo testing.
Continue Anyway
STOP Installation

5.Click **Finish** to complete the driver installation.


Found New Hardware Wizard
Completing the Found New Hardware Wizard
The wizard has finished installing the software for:
NTT-ME 11Mbps Wireless LAN PC Card
Click Finish to close the wizard.
< Back
Finish
Cancel

Installing the Wireless LAN Card Software

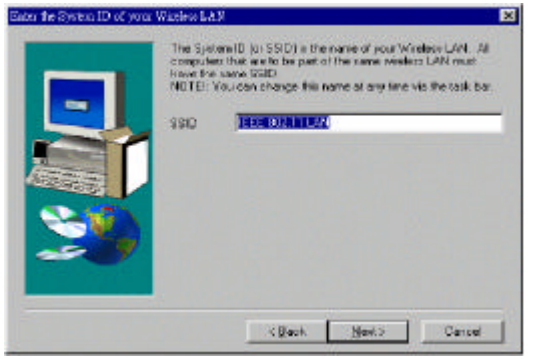
1. Close all Windows programs that are running.

2. Run **Setup.exe** from the **D**:**Utility** folder of the Wireless LAN Card Installation CD-ROM where D is the CD-ROM drive letter, and then click **Next**.

Welcome
Welcome to the PRISM 802.11 Wireless LAN Setup program. This program will install PRISM 802.11 Wireless LAN on your computer.
It is strongly recommended that you exit all Windows programs before running this Setup program.
Click Cancel to quit Setup and then close any programs you have running. Click Next to continue with the Setup program.
WARNING: This program is protected by copyright law and international treaties.
Unauthorized reproduction or distribution of this program, or any portion of it, may result in severe civil and criminal penalties, and will be prosecuted to the maximum extent possible under law.
Next >
Cancel

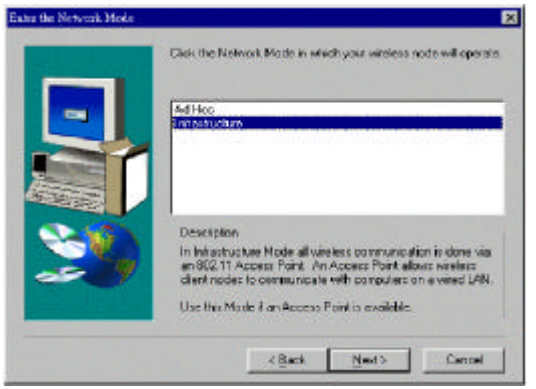
3. Click **Yes** to accept the Software Licensing Agreement.

4. In the **SSID** box, enter the Service Set ID name of your wireless network, and then click **Next**.

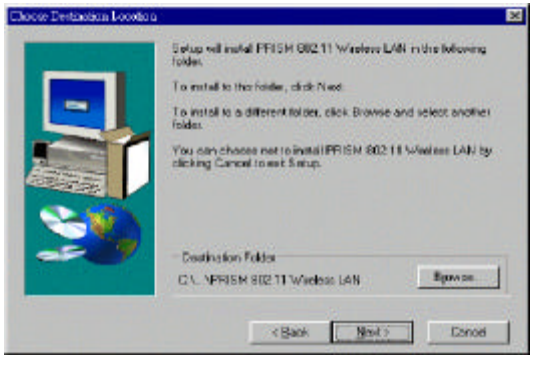


5. Write down the Service Set ID name exactly as you have entered it (for use in a later installation step), and then click **OK**.

6. Click the **Infrastructure** if you want your wireless computer to be associated with an access point. Click **Ad-Hoc** if you want multiple wireless computers to network directly with each, and then click **Next**.

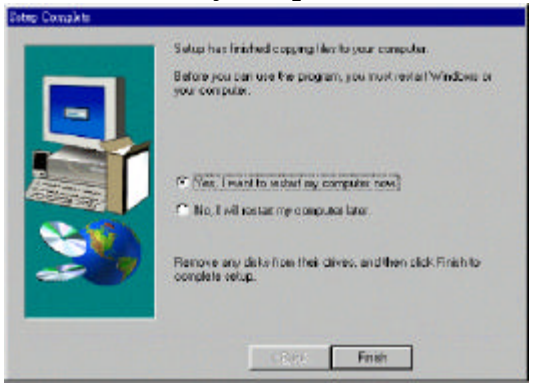


7. To install the software to the default destination folder, click **Next**. To install to a different folder, click **Browse**, select another folder, and then click **Next**.



8. Click **Next** to continue.

9. After Windows copies the Setup files from the Wireless LAN Card CD-ROM, click **Yes, I want to restart my computer now**, and then click **Finish**.



Chapter 3
Configuring the Wireless LAN Card

You can connect your computer to a network in one of two ways:

Ad Hoc Connecting to other Wireless LAN Card equipped computers, forming a wireless network.

Infrastructure Connecting to a wired network through an Access Point.

When the Wireless LAN Card is installed and your computer is turned on, one of the following **Wireless LAN Link Status** icons will be displayed in the taskbar at the bottom right corner of your Windows screen:

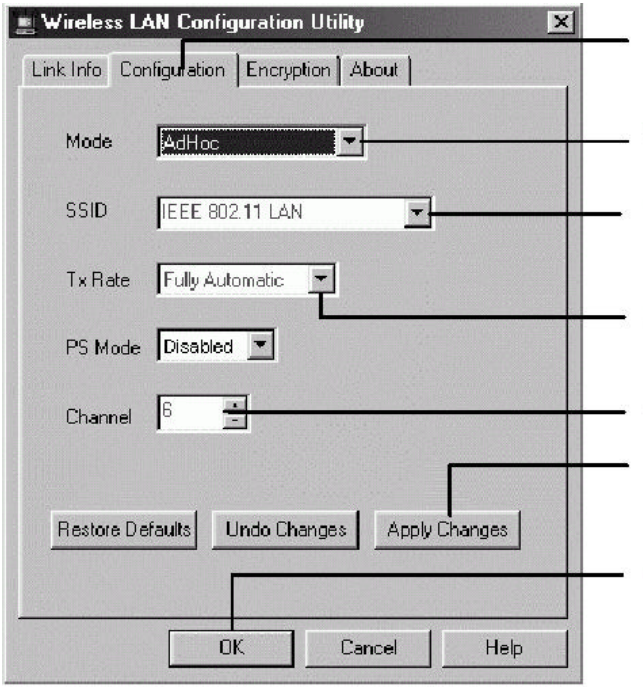
Not Linked Computer is not connected to any other computers. (Red)

Linked Computer joined to a network or formed a network. (Green)

Connecting to Other Computers with WLAN (Ad Hoc)

To connect your computer to an Ad Hoc network, complete the following steps:

1. In the systray area, click the **Wireless LAN Link Status** icon to display the **Wireless LAN Configuration Utility** dialog box.
2. Click the **Configuration** tab.
3. In the **Mode** list, click **AdHoc**.
4. In the **SSID** list, select SSID name of the Wireless LAN group.
   All wireless clients must use the same SSID in order to communicate with each other.
5. In the **Channel** list, click up or down to get the correct Channel Number which is the same as used by other computer to be connected to.
6. Click **Apply Changes**. You should now be able to find your computer on the **Network Neighborhood** in Windows Explorer.
7. Click **OK** to exit the utility.

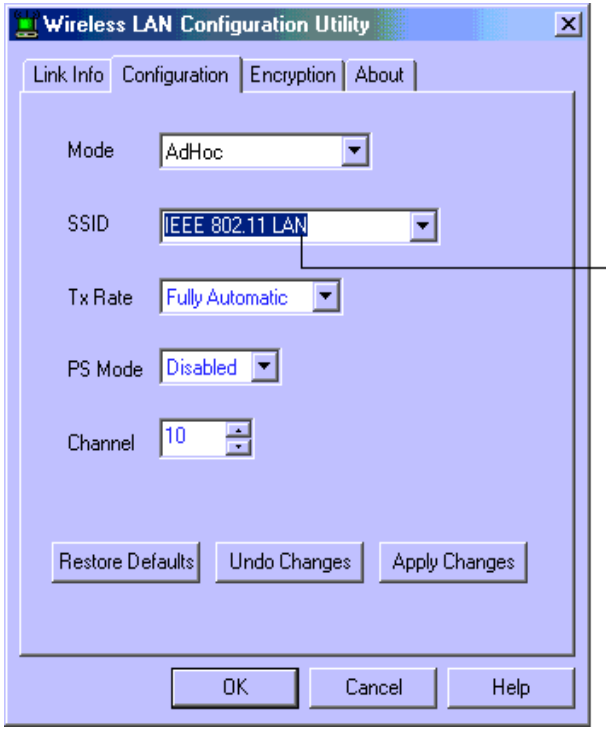


1. Click the **Configuration** tab.
2. Click **AdHoc**.
3. Click **SSID** name of the Wireless LAN group.

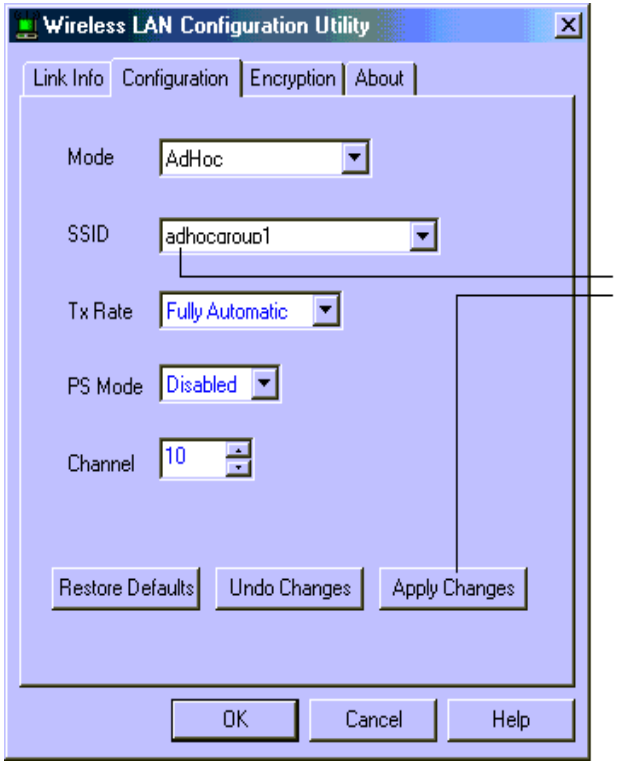
Default: **Fully Automatic**.

4. Click **Channel Number**.
5. Click **Apply Changes**.
6. Click **OK**.

Quick Connecting to Other Computers with WLAN (Ad Hoc)



1. Assume you know the common name (SSID) of Wireless LAN group in AdHoc mode.



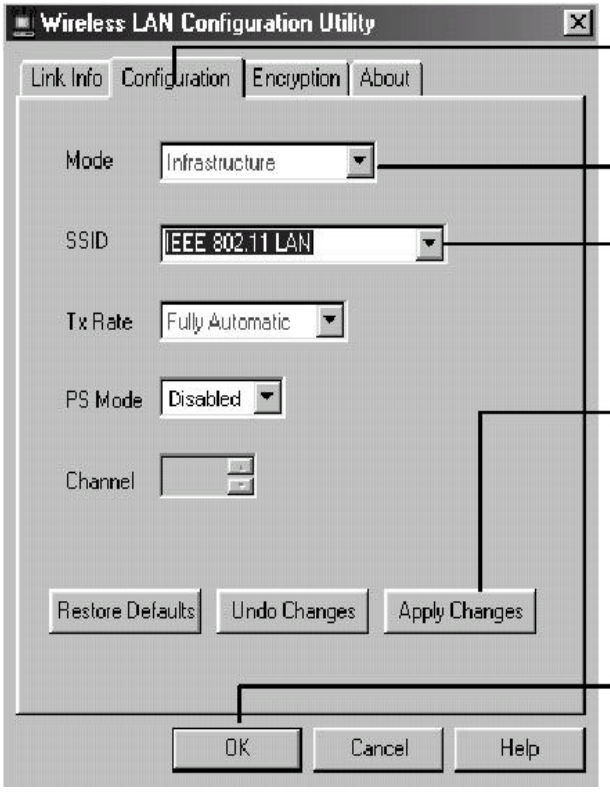
2. For example, your common name (SSID) of Wireless LAN group is 'adhocgroup1', Type 'adhocgroup1' in **SSID** list, and click **Apply Changes.**

3. This wireless LAN card has automatically links to the other Wireless LAN Card with same SSID.

Connecting to Access Points (Infrastructure)

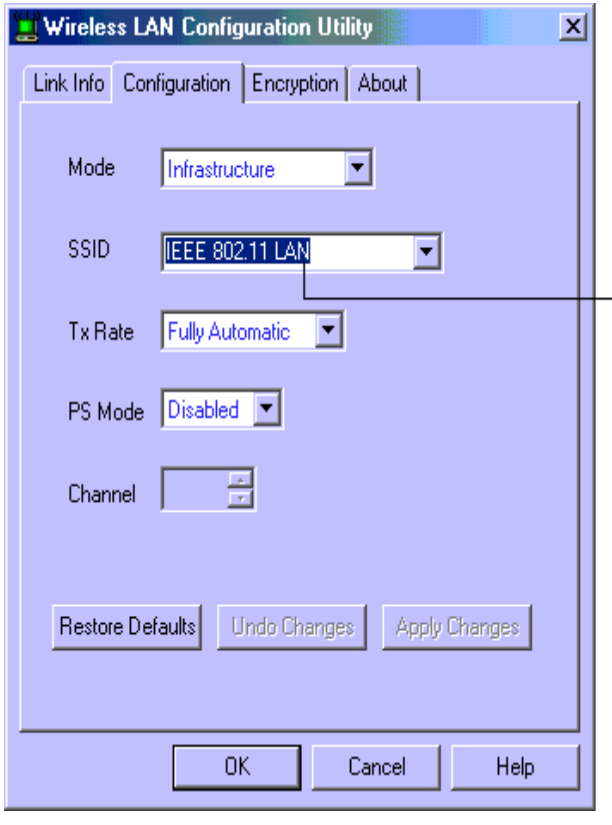
To connect your computer to an Infrastructure network, complete the following steps:

1. In the systray area, click the **Wireless LAN Link Status** icon
   to display the **Wireless LAN Configuration Utility** dialog box.
   If the wireless icon does not display in the systray area,
   click Start -> Programs -> PRISM 802.11 -> Configuration Utility.
2. Click the **Configuration** tab.
3. In the **Mode** list, click **Infrastructure**.
4. In the **SSID** list, click or enter SSID name of the Access Point.
   All wireless clients must use the same SSID in order to communicate with each other.
5. Click **Apply Changes**. Click on the **Link Info** Page, you will see the status
   "Associated-BSSID=xx.xx.xx.xx.xx.xx".
6. Click **OK** if you wish to exit the utility.

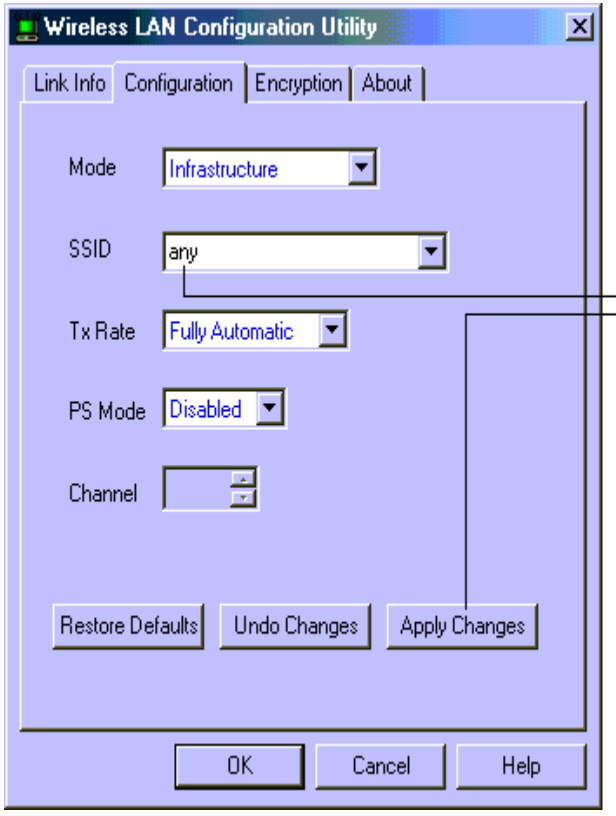


1. Click the **Configuration** tab.
2. Click **Infrastructure.**
3. Click **SSID** name of the Access Point.
4. Click **Apply Changes**.
5. Click **OK** to exit the utility.

Quick Connecting to any unknown Access Points (Infrastructure)



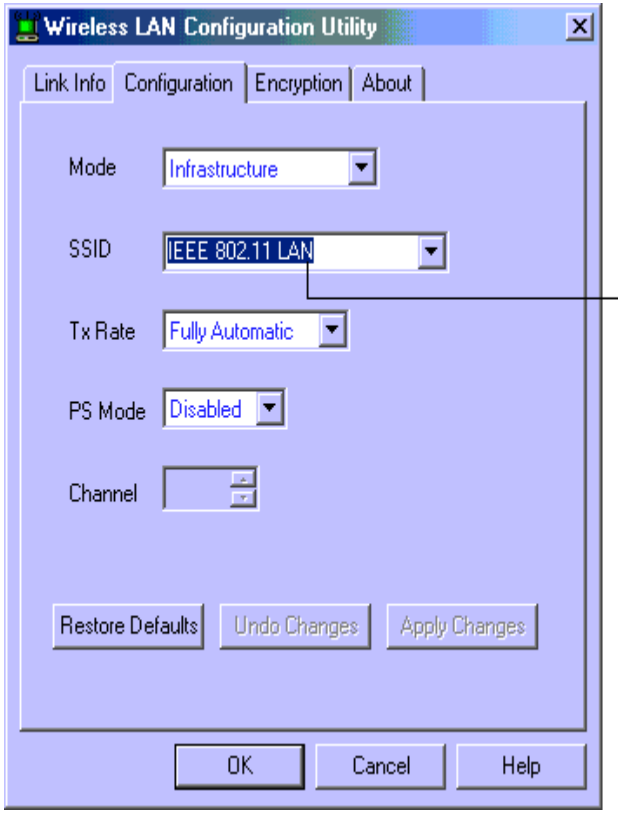
1. If you do not know what your AP name is or you just want to link to any AP with strongest signal, please click **SSID** list and turn it into blue color.



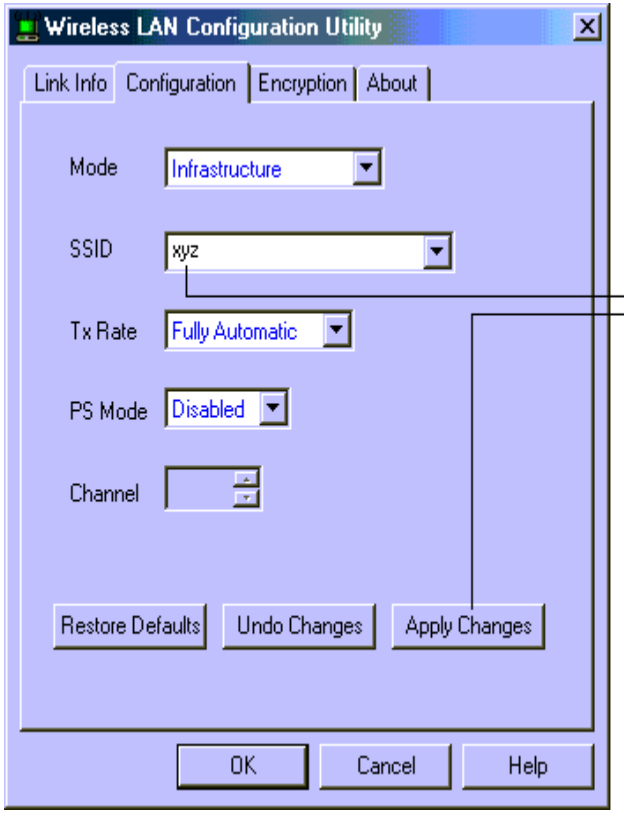
2. Type 'any' in **SSID** list, and click **Apply Changes.**

3. This wireless LAN card has automatically found out a AP with strongest signal.

Quick Connecting to a known Access Points (Infrastructure)



1. If you know your AP name,
   please click **SSID** list and turn it into blue color.



2. For example, your AP name is 'xyz',
   Then type 'xyz' in **SSID** list,
   and click **Apply Changes.**

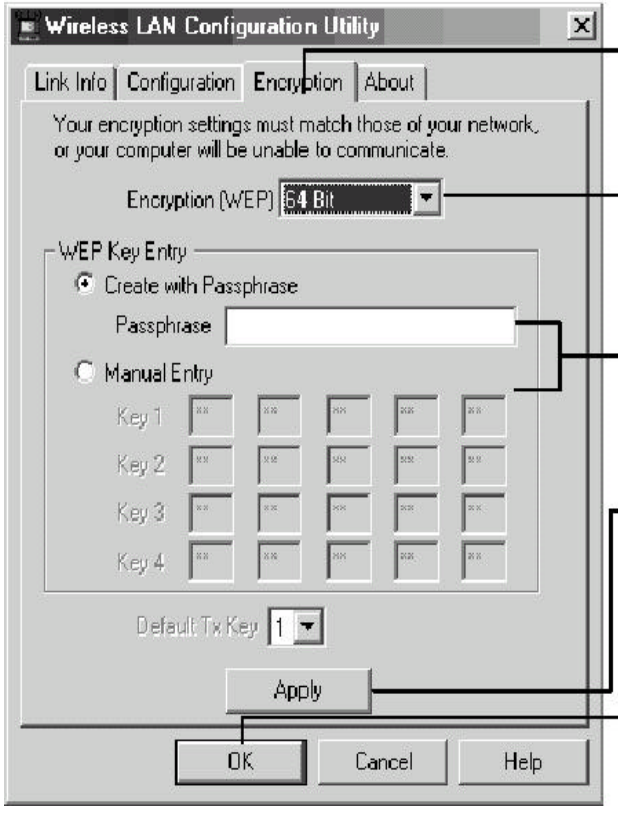
3. This wireless LAN card has automatically
   links to the AP called 'xyz'.

Setting Security

Your encryption settings must match those of your network, or your computer will be unable to communicate.
To establish a secure wireless network, complete the following steps:

The **Passphrase** of each computer must be the same before a connection can be made between the computers.

1. In the taskbar, click the **Wireless LAN Link Status** icon to display the **Wireless LAN Configuration Utility** dialog box.
2. Click the **Encryption** tab.
3. In the **WEP** (Wired Equivalent Privacy) list, click the proper WEP setting.
4. In the **Passphrase** box, enter the password or phrase, or click the **Manual Entry**.
5. Click **Apply**, and then click **OK**.



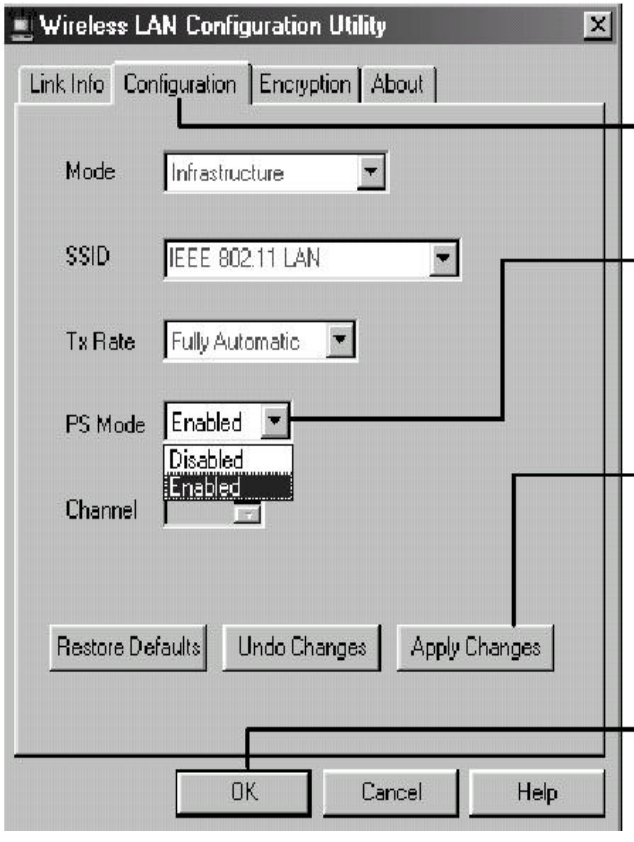
1. Click the **Encryption** tab.
2. Click the proper WEP setting.
3. Enter the password or phrase, or click the **Manual Entry**.
4. Click **Apply**.
5. Click **OK** to exit the utility.

Setting Power Save Mode

You may need to minimize all other Windows programs that are currently running.

Power Save Mode is recommended for devices where power consumption is a major concern, such as battery-powered devices. While in Power Save Mode the Access Point stores incoming messages in a memory buffer. The Wireless LAN Card wakes up periodically from Power Save Mode and checks for any messages that might be waiting at the Access Point. After the messages are transmitted to the Wireless LAN Card from the Access Point, the Wireless LAN Card goes back into Power Save Mode.

1. In the taskbar, click the **Wireless LAN Link Status** icon to display the **Wireless LAN Configuration Utility** dialog box.
2. Click the **Configuration** tab.
3. In the **PS Mode** (Power Save Mode) list, click **Enabled**, and then click **Apply Changes**.
4. Click **OK** to exit the utility

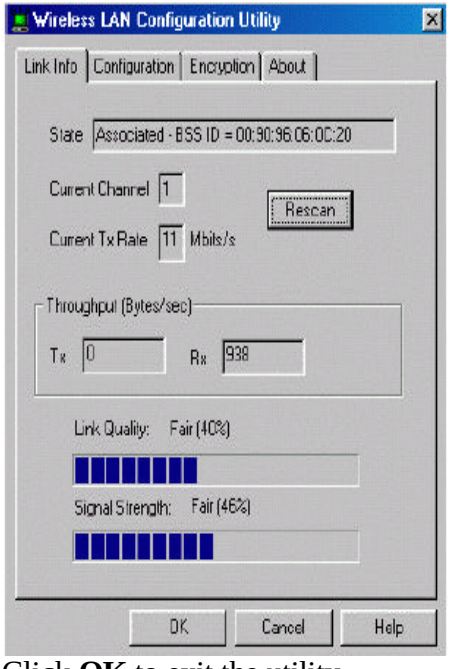


1. Click the **Configuration** tab.
2. In the **PS Mode** (Power Save) list, click **Enabled**.
3. Click **Apply Changes**.
4. Click **OK** to exit the utility.

Checking Link Quality (Infrastructure Mode Only)

To check the quality of your computer's wireless link to an Access Point, compl ete the following steps:

1. Click the **Link Info** tab.
   The State box shows the MAC address for the Access Point.
2. Link Quality and Signal Strength are displayed as percentages using active progress indicators that change as the network radio signal fluctuates. Link Quality categories are defined as follows:



Link Quality	Range (%)
Poor	0-29
Fair	30-59
Good	60-89
Excellent	90-100

3. Click **OK** to exit the utility.

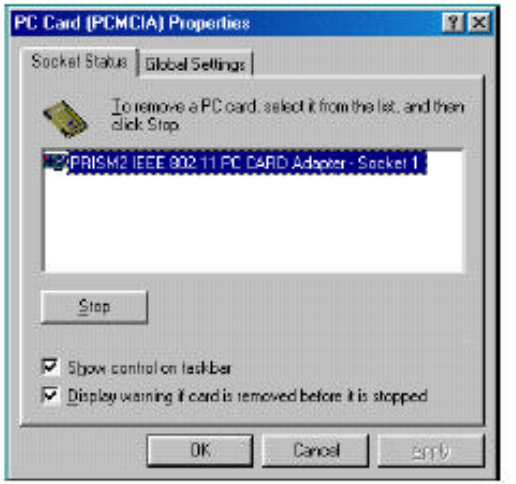
Chapter 4
Uninstalling the Wireless LAN Card

Removing the Wireless LAN Card

You should use the PC Card icon on the taskbar to stop PC Card before removing them. Removing card without warning the system can cause unexpected problems.

The Wireless LAN Card complies with the PCMCIA standard that allows devices to be inserted into and removed from the computer's PCMCIA socket when the computer is on. It is recommended that you follow the standard Windows procedure for disconnecting a PCMCIA device from your c

1. In the taskbar, click the PCMCIA icon, and then click **Adjust PC Card Properties**.
2. Select the Wireless LAN Card which you want to remove, c **Stop** and then click **OK**.
3. When the message appears that tells you it is safe to remov device, click **OK** and remove the Wireless LAN Card from computer.

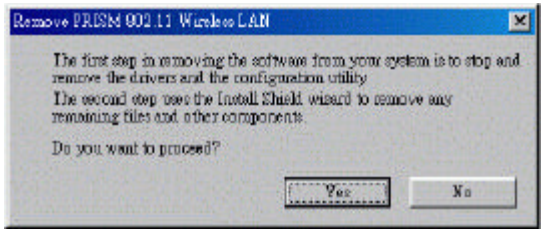

PC Card (PCMCIA) Properties
Socket Status
Global Settings
To remove a PC card, select it from the list, and then click Stop.
PRISM2 IEEE 802.11 PC CARD Adapter - Socket 1
Stop
Show control on taskbar
Display warning if card is removed before it is stopped
OK
Cancel

Uninstalling the Wireless LAN Card Software

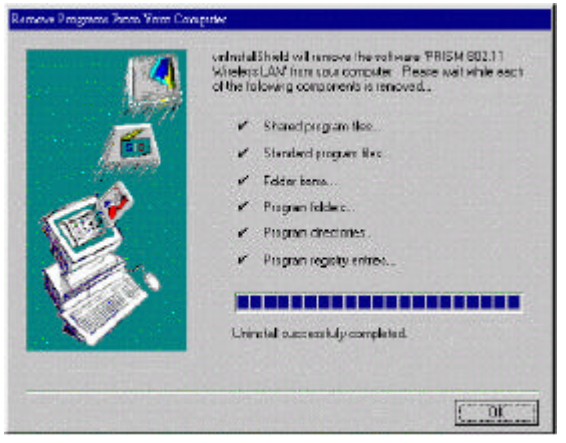
If you need to uninstall the Wireless LAN Card and application software for any reason, complete the following steps:

1. Close all programs that are currently running.
2. Remove the Wireless LAN Card from the computer.
3. Click the Windows **Start** button, point to **Programs**, **PRISM 802.11** and then click **Uninstaller**.

4. Click **Yes** to proceed with the software procedure.


Remove PRISM 802.11 Wireless LAN
The first step in removing the software from your system is to stop and remove the drivers and the configuration utility.
The second step uses the InstallShield wizard to remove any remaining files and other components.
Do you want to proceed?
Yes
No

5. When the uninstallation is completed, click **OK**.


Remove Programs from Your Computer
InstallShield will remove the software 'PRISM 802.11 Wireless LAN' from your computer. Please wait while each of the following components is removed...
Shared program files...
Standard program files...
Folder items...
Program folders...
Program directories...
Program registry entries...
Uninstall successfully completed.
OK

Chapter 5
Updating the Device Driver

To update the device driver, you have to remove the old driver first and then install a new one. For the latest driver, please visit our web site for more information. When you have finished the download procedure, please follow as below to update the device driver.

1. Uninstall the Wireless LAN Card as described in Chapter 4. Follow the steps to remove the Wireless LAN Card and then uninstall the software.
2. Install the new driver you have downloaded. Refer to Chapter 2 for detailed instructions. Once you finish installing the new driver, the updating is complete.

Chapter 6
Troubleshooting

Radio Interference

You may be able to eliminate any interference by trying the following:

- Reseat the Wireless LAN Card.
- Increase the distance between the wireless computers and the device causing the radio interference.
- Plug the computer equipped with the Wireless LAN Card into an outlet on a different branch circuit from that used by the affecting device.
- Consult the dealer or an experienced radio technician for help.
- Keep the computer with the Wireless LAN Card away from the microwave oven and large metal objects.

Card Not Detected

If the Wireless LAN Card is not detected by Windows, try the following:

- Make sure the Wireless LAN Card is properly inserted in the PCMCIA slot.
- Make sure the PCMCIA slot in your computer is working.
- Contact your dealer for additional testing if there is a hardware problem with the Wireless LAN Card.

Cannot Connect to Another Wireless LAN Card

If you cannot make a connection to another Wireless LAN Card from your computer, it could be due to one of the following reasons:

- Incorrect SSID. Make sure the SSID is the same for all computers that have a Wireless LAN Card.
- Changes are not being recognized by your computer. Restart your computer.
- If in Ad Hoc mode, make sure the **Log on to Windows NT domain** check box is not selected in the **Client for Microsoft Networks Properties** dialog box in the **Network Configuration** tab.
- Incorrect IP Address or Subnet Mask. Check these settings in the **TCP/IP Properties** dialog box in the **Network Configuration** tab.
- Make sure the channel for the Wireless LAN Card is set to the same channel number as the one for the other Wireless LAN card you are trying to connected to.

Poor Link Quality

If the Link Quality display stays in the Poor range, it could be due to one of the following reasons:

- Radio interference.
- Distance between Wireless LAN Card and Access Point is too far. Decrease the distance between the Wireless LAN Card and Access Point (or another card).

Cannot Connect to Access Point

If you cannot make a connection to the Access Point, it could be due to one of the following reasons:

- Make sure the Wireless LAN Card and Access Point have no physical connection problems.
- Make sure the SSID for the Wireless LAN Card is set to .null. or is the same as the Access Point.
- Make sure the privacy type is the same as that of Access Point. If both are using a Passphrase, make sure it is the same for both computers. Also, make sure the Default Key is the same for both computers.

Appendix A
Limited Warranty

Wireless LAN Hardware

The seller warrants to the end user (.Customer.) that this hardware product will be free from defects in workmanship and materials, under normal use and service, for 1 year from the date of purchase from the seller or its authorized reseller. The seller's sole obligation under this express warranty shall be, at the seller's option and expense, to repair the defective product or part, deliver to Customer an equivalent product or part to replace the defective item, or if neither of the two foregoing options is reasonably available, The seller may, in its sole discretion, refund to the Customer the purchase price paid for the defective product. All products that are replaced will become the property of the seller. Replacement products may be new or reconditioned.

Wireless LAN Software

The seller warrants to Customer that each software program licensed from it , except as noted below, will perform in substantial conformance to its program specifications, for a period of 1 year from the date of purchase from the seller or its authorized reseller. The seller warrants the media containing software against failure during the warranty period. No updates are provided. The seller's sole obligation under this express warranty shall be, at the seller's o ption and expense, to refund the purchase price paid by Customer for any defective software product, or to replace any defective media with software which substantially conforms to applicable seller published specifications. Customer assumes responsibility for the selection of the appropriate application programs and associated reference materials. The seller makes no warranty or representation that its software products will meet Customer's requirements or work in combination with any hardware or software applications products provided by third parties, that the operation of the software products will be uninterrupted or error free, or that all defects in the software products will be corrected. For any third party products listed in the seller software product documentation or specifications as being compatible, the seller will make reasonable efforts to provide compatibility, except where the non-compatibility is caused by a defect in the third party's product or from use of the software product not in accordance with the seller's published specifications or user manual.

Appendix B
Regulatory Compliance

FCC Part 15 Declaration of Conformity (DoC)

The following equipment:

Product Name: Wireless PC LAN Card
is herewith confirmed to comply with the requirements of FCC Part 15 rules. The operation is subject to the following two conditions:

1. This device may not cause harmful interference, and
2. This device must accept any interference received, including interference that may cause undesired operation.

FCC Rules and Regulations - Part 15

Warning: This device has been tested and found to comply with the limits for a Class B digital device pursuant to Part 15 of the Federal Communications Commissions Rules and Regulation. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications.

However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try and correct the interference by one or more of the following measures:

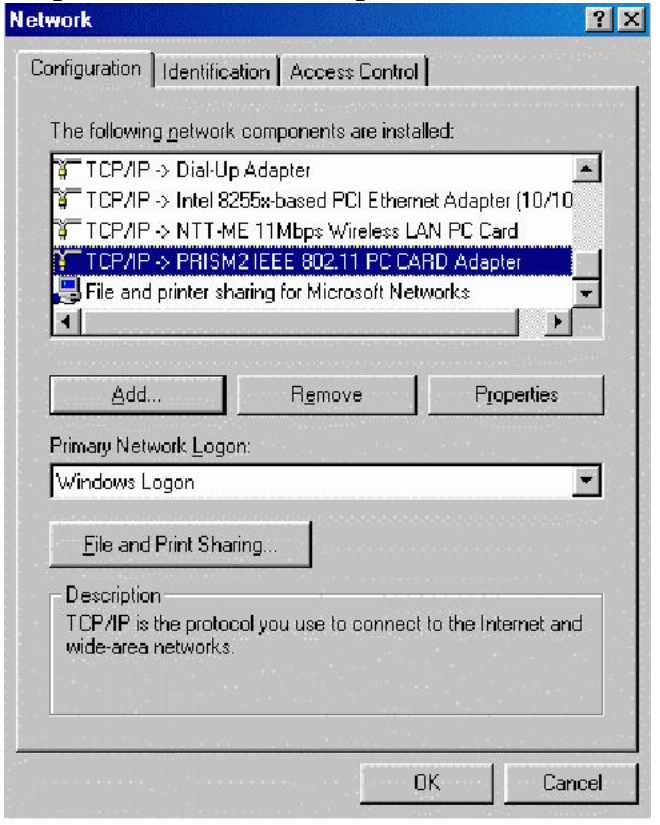
- Relocate your WLAN equipped laptop computer.
- Increase the separation between the WLAN equipped laptop computer and other electronics.
- Connect the WLAN equipped laptop computer into an outlet on a circuit different from that of other electronics.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Radiation Exposure Statement

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance of 20cm between the radiator & your body.

Appendix C
Setting Up TCP/IP

1. On the taskbar, click the **Start** -> **Settings** -> **Control Panel**, double click the **Network** icon.
2. Click the **Configuration** tab of the **Network** dialog box.
3. In the **network components** list, click **TCP/IP** ->**PRISM2 IEEE 802.11 PC CARD Adapter**, and then click **Properties**.



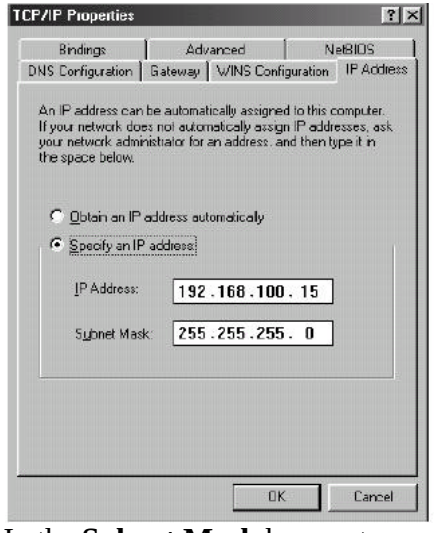
For correct IP address information for your wireless LAN installation, contact your network administrator.

For more information on IP addresses, see the Network Working Group Specification RFC 1918 on the Internet.

The subnet mask is a value that defines whether your

4. On the **IP Address** tab, click **Specify an IP address**. In the **IP Address** box, enter a valid four-component IP address, either a public or private one as required. If private IP address is used, the following three blocks of IP addresses are available for private networks:

   10. 0 . 0. 0 . 10.255.255.255
   172. 16. 0. 0 . 172. 31.255.255
   192.168. 0. 0 . 192.168.255.255



5. In the **Subnet Mask** box, enter a valid four-component IP address.
6. Click **OK**, and then click **Yes** to restart your computer.

Glossary

10BaseT An IEEE standard (802.3) for operating 10 Mbps Ethernet networks (LANs) with twisted pair cabling and a wiring hub.

Access Point An internetworking device that seamlessly connects wired and wireless networks. Access Points combined with a distributed system support the creation of multiple radio cells that enable roaming throughout a facility.

Ad Hoc A network composed solely of stations within mutual communication range of each other (no Access Point connected).

BSS *Basic Service Se*t. A set of stations controlled by a single coordination function.

Channel A medium used to pass protocol data units that can be used simultaneously in the same volume of space by other channels of the same physical layer, with an acceptably low frame error ratio due to mutual interference.

Encapsulated An Ethernet address mode that treats the entire Ethernet packet as a whole and places it inside an 802.11 frame along with a new header.

ESS *Extended Service Se*t. A set of one or more interconnected Basic Service Sets (BSSs) and integrated Local Area Networks (LANs) can be configured as an Extended Service Set.

Ethernet The most widely used medium access method, which is defined by the IEEE 802.3 standard. Ethernet is normally a shared media LAN; i.e., all the devices on the network segment share total bandwidth. Ethernet networks operate at 10Mbps using CSMA/CD to run over 10BaseT cables.

Gateway A network component that acts as an entrance to another network.

IEEE 802.11 The IEEE 802.xx is a set of specifications for LANs from the Institute of Electrical and Electronic Engineers (IEEE). Most wired networks conform to 802.3, the specification for CSMA/CD-based Ethernet networks or 802.5, the specification for token ring networks. 802.11 defines the standard for wireless LANs encompassing three incompatible (non-interoperable) technologies: Frequency Hopping Spread Spectrum (FHSS), Direct Sequence Spread Spectrum (DSSS), and Infrared. IEEE standards ensure interoperability between systems of the same type.

Infrastructure A wireless network centered about an Access Point. In this environment, the Access Point not only provides communication with the wired network but also mediates wireless network traffic in the immediate neighborhood.

IP *Internet Protocol*. The standard protocol within TCP/IP that defines the basic unit of information passed across an Internet connection by breaking down data messages into packets, routing and transporting the packets over network connections, then reassembling the packets at their destination. IP corresponds to the network layer in the ISO/OSI model.

IP Address An IP address is a 32-bit number that identifies each sender or receiver of information sent across the Internet. An IP address has two parts: the identifier of a particular network on the Internet and an identifier of the particular device (which can be a server or a workstation) within that network.

ISP *Internet Service Provide*r. An organization that provides access to the Internet. Small ISPs provide service via modem and ISDN while the larger ones also offer private line hookups (T1, fractional T1, etc.).

LAN *Local Area Networ*k. A communications network that serves users within a defined geographical area. The benefits include the sharing of Internet access, files, and equipment, such as printers and storage devices. Special network cabling (10BaseT) is often used to connect the PCs together.

NAT *Network Address Translatio*n. The translation of an Internet Protocol address (IP address) used within one network to a different IP address known within another network. One network is designated the internal network and the other is the external. The internal network then appears as one entity to the outside world.

PCMCIA *Personal Computer Memory Card International Associatio*n. This Association develops standards for PC cards, formerly known as PCMCIA cards. These cards are available in three types, and are about the same length and width as credit cards. However, the different cards range in thickness from 3.3 mm (Type I) to 5.0 mm (Type II) to 10.5 mm (Type III). These cards can be used for various functions, including memory storage, landline modems, and wireless modems.

PS Mode *Power Save* Mode. This mode is recommended for devices where power consumption is a major concern, such as battery-powered devices.

Radio Frequency *R*F, Terms: GHz, MHz, Hz .The international unit for measuring frequency is Hertz (Hz), equivalent to the older unit of cycles per second. One megahertz (MHz) is one Million-Hertz. One giga hertz (GHz) is one Billion-Hertz. The standard U.S. electrical power frequency is 60 Hz, the AM broadcast radio frequency band is 0.55.1.6 MHz, the FM broadcast radio frequency band is 88.108 MHz, and wireless 802.11 LANs operate at 2.4GHz.

SSID *Service Set I*D. A group name shared by every member of a wireless network. Only client PCs with the same SSID are allowed to establish a connection.

Subnet Mask A value that defines whether your computer communicates only within your LAN or communicates outside of your LAN, where it is routed out to the rest of the Internet. A Subnet Mask that has the same first three components (for example, 255.255.255.0) is the routing pattern for a Class C address.

TCP *Transmission Control Protoco*l. The standard transport level protocol that provides the full duplex, stream service on which many applications. protocols depend. TCP allows a process on one machine to send a stream of data to a process on another. Software implementing TCP usually resides in the operating system and uses the IP to transmit information across the network.

WEP *Wired Equivalent Privac*y. The optional cryptographic confidentiality algorithm specified by 802.11. The algorithm is being used to provide data confidentiality that is subjectively equivalent to the confidentiality of a wired LAN medium that does not employ cryptographic techniques to enhance privacy..

Index

1

10BaseT, 37

A

Access Point, 1, 2, 4, 11, 14, 18, 20, 29, 37, 38
Ad Hoc, 1, 2, 4, 11, 12, 28, 37
AdHoc, 8, 12

B

battery-powered devices, 18
BSS, 37

C

Cannot connect to Access Point
  troubleshooting, 29
Cannot connect to another Wireless LAN Card
  troubleshooting, 28
Card not detected
  Troubleshooting, 28
Channel, 12, 28, 37
Checking
link quality, 20
Computer power, 3
Connecting to other Wireless LAN Card, 11

D

Default destination folder, 9
Device driver
updating, 25
Driver
installing, 5

E

ESS, 37
Ethernet, 2, 37, 38

G

Gateway, 2, 38
Glossary, 37

H

Hardware, 31, 32
installing, 3
problem, 28

I

Icons
status, 11
IEEE, 35, 37, 38
Infrastructure, 1, 2, 4, 8, 11, 14, 20, 38
Installing
hardware, 3
Wireless LAN Card, 3
IP Address, 28, 36, 38
ISP, 39

L

LAN, i, 2, 3, 4, 7, 10, 11, 12, 14, 16, 18, 21, 22, 25, 27, 28, 29, 31, 32, 33, 34, 37, 38, 39, 40
LED, 4
Link Quality
checking, 20

N

NAT, 39
Network, 1, 2, 4, 8, 11, 12, 14, 16, 20, 35, 36, 37, 38, 39, 40

P

PCMCIA, 3, 4, 21, 28, 39
card slot, 3
Poor Link Quality
Troubleshooting, 29
Power Save Mode, 18, 39
setting, 18
Progress indicators, 20
PS, 39

R

Radio Frequency, 34, 40
Radio Interference, 27
RAM, 3
Removing
Wireless LAN Card, 21
Restart
computer, 28

S

Security
setting, 16
Service Set ID, 8, 12, 40
Setting

Power Save Mode, 18
security, 16
Setting Up
TCP/IP, 35
Setup.exe, 7
Software
installing, 7
uninstalling, 22
Software Licensing Agreement, 7
SSID, 8, 12, 14, 28, 29, 40
Status icons, 11
Subnet Mask, 28, 36, 40

T

Taskbar, 11, 12, 14, 16, 18, 21, 35
TCP/IP, 2, 28, 35, 38
Troubleshooting
cannot connect to Access Point, 29
cannot connect to another Wireless LAN Card, 28
card not detected, 28
poor link quality, 29
radio interference, 27

U

Uninstalling
Wireless LAN Card, 21
Updating
device driver, 25
Utility
installing, 7

W

WEP, 40
Wired Equivalent Privacy, 16, 40
Wireless LAN Card
inserting into PCMCIA slot, 3